CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

Job No.: CTCE/BBMP/W.No.09/BHS/CEMENT/2012-13 Date: 11.03.2013

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. B.H. Shivakumar,** Contractor, Bangalore.
NAME OF THE WORK	:	Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.
REFERENCE	:	AEE/VP/WO/330/2012-13 Dated: 08.03.2013
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4)	27.50 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	160 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	445 Minutes	Not More than 600 Minutes
3	Soundness) by the Le-Chatelier method	IS-4031 (Part 3	1 mm	Not more than 10 mm

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Job No.: CTCE/BBMP/W.No.09/BHS/SAND/2012-13 : 11.03.2013

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B.H. Shivakumar,** Contractor, Bangalore.

Name of Work : Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.

Reference : AEE/VP/WO/330/2012-13 Dated: 08.03.2013

Date of Testing : 11.03.2013

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	85	4.25	4.25	95.8	90-100
2.36	348	17.40	21.65	78.4	75-100
1.18	392	19.60	41.25	58.8	55-90
600 Micron	437	21.85	63.10	36.9	35-59
300 Micron	513	25.65	88.75	11.3	8-30
150 Micron	154	7.70	96.45	3.6	0-10

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Job No.: CTCE/BBMP/W.No.09/BHS/AGG/2012-13 : 11.03.2013

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B.H. Shivakumar,** Contractor, Bangalore.

Name of Work : Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.

Reference : AEE/VP/WO/330/2012-13 Dated: 08.03.2013

Date of Testing : 11.03.2013

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25100**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	945	3.76	3.76	96.24	95-100
20	16125	64.24	68.01	31.99	30-70
10	4798	19.12	87.12	12.88	10-35
4.75	2513	10.01	97.14	2.86	0-5

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Job No.: CTCE/BBMP/W.No.09/BHS/CUBE/2012-13 13.04.2013

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B.H. Shivakumar,** Contractor, Bangalore.

Name of the work : Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.

Reference : AEE/VP/WO/330/2012-13 Dated: 08.03.2013

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{10}

Compressive Strength as o : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	16.03.2013	13.04.2013	8.135	257.6	11.45
2	16.03.2013	13.04.2013	8.248	272.9	12.13
3	16.03.2013	13.04.2013	8.353	291.4	12.95

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Job No.: CTCE/BBMP/W.No.09/BHS/STEEL/2012-13 11.03.2013

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. B.H. Shivakumar,** Contractor, Bangalore.
Name of the work	:	Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.
Reference	:	AEE/VP/WO/330/2012-13 Dated: 08.03.2013
Date of Test	:	11.03.2013
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	8	0.40	511	554	13.10	O.K	O.K

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Job No.: CTCE/BBMP/W.No.09/BHS/CUBE/2012-13 20.04.2013

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B.H. Shivakumar,** Contractor, Bangalore.

Name of the work : Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.

Reference : AEE/VP/WO/330/2012-13 Dated: 08.03.2013

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.03.2013	20.04.2013	8.151	473.6	21.05
2	23.03.2013	20.04.2013	8.219	485.7	21.59
3	23.03.2013	20.04.2013	8.354	498.6	22.16

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TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B.H. Shivakumar,** Contractor, Bangalore.

Name of the work : Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.

Reference : AEE/VP/WO/330/2012-13 Dated: 08.03.2013

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	25.03.2013	22.04.2013	8.138	482.6	21.45
2	25.03.2013	22.04.2013	8.356	498.6	22.16
3	25.03.2013	22.04.2013	8.271	512.4	22.77

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TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B.H. Shivakumar,** Contractor, Bangalore.

Name of the work : Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.

Reference : AEE/VP/WO/330/2012-13 Dated: 08.03.2013

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	26.03.2013	23.04.2013	8.115	471.4	20.95
2	26.03.2013	23.04.2013	8.192	483.5	21.49
3	26.03.2013	23.04.2013	8.245	496.2	22.05

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Job No.: CTCE/BBMP/W.No.09/BHS/WMM/Gradation/2012-13

02.04.2013

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Vidyaranyapura Sub Division, BBMP, Bangalore.

Agency : **Mr. B.H. Shivakumar,** Contractor, Bangalore.

Name of Work : Improvements of Nanjappa Circle in Ward No. 09, BBMP, Bangalore.

Reference : AEE/VP/WO/330/2012-13 Dated: 08.03.2013

Date of Testing : 02.04.2013

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **7940**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	375	375	4.7	95.3	95-100
22.4	2610	2985	37.6	62.4	60-80
11.2	1315	4300	54.2	45.8	40-60
4.75	620	4920	62.0	38.0	25-40
2.36	1025	5945	74.9	25.1	15-30
0.600	775	6720	84.6	15.4	8-22
0.075	865	7585	95.5	4.5	0-8

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